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1

# SEQUENCE LISTING

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<120> NOVEL COMPOSITIONS AND METHODS FOR THE  
IDENTIFICATION, ASSESSMENT, PREVENTION AND THERAPY  
OF HUMAN CANCERS

<130> MRI-027

<140> 10/071,510

<141> 2002-02-08

<150> US 60/267,276

<151> 2001-02-08

<160> 19

<170> FastSEQ for Windows Version 4.0

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<211> 242

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 57, 62, 71, 78, 117, 133, 137, 207, 219, 226, 229

<223> n = A,T,C or G

<400> 1

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gngtctactt nttccacnca taattataaa agaataagaa tcgacaaaaa tattttnttt 120
ccataatatg tanaggnggt tggtttcctt tttttttttt ttcttttctt ttaacttttt 180
tttttttttt tttttttttt gggctcnaaa gggggtagnng ggggtnctnt aggacctgcc 240
cg 242
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<210> 2

<211> 417

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 338, 349, 388

<223> n = A,T,C or G

<400> 2

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tatatttagt ttttcattct gaatagactg aaaaaatata tgaattagaa atttatattaa 120
gaccatcttt cttttgttgc tttttttaaa catttacttt tctttaagcc ataaggatgc 180
ataaattatg cagggcatga cttatgagt aacatcaaca ggtatttcag aaataacaga 240
acacgtctag aaatgtatgg tggtaatat aatctataca ttttttggca tgatttgtac 300
attgacattg tatgaaatga gcacactgag ggtttttngg tgggtactgnc gcatccaagg 360
aggttgggga gaactatata agaatgtntt ataatcacta ttttaaataa agtaaaa 417
```

<210> 3

<211> 512

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3

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aaaagcctaa ttatttttca gggcaaaact tctgcaactgg gacaaatgtc ttcattataa 120
tccaaaagca gcatcaggaa aagaagctga actgtgcgaa tagaaatgaa tggggctgct 180
gctgctgctg ctgcttttct tttaatcagt agaaatggaa ttctgcctgc caaacagaag 240
tctaggagga acctgcagac ggcccctgta ctgagggcat tttgtcaggg cttaaagcaa 300
ccttcaagat catgacactc tgctatgagg accgaaagaa cttggagata aatatacatg 360
tactatgtgg tgggaccgat tttgaatctg aactaaatta aatgatggaa aacgacctg 420
ggtgagttca ttcatggctg aacttgctgg gaatgataca acttttcaaa ataatttggt 480
tccttcaaat gacaccaaca cctatagtta ag 512
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&lt;210&gt; 4

&lt;211&gt; 356

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc\_feature

<222> 1, 17, 24, 39, 95, 98, 113, 116, 130, 143, 153, 154, 155,  
164, 165, 172, 174, 190, 192, 198, 202, 206, 207, 238, 245,  
246, 247, 253, 285, 295, 299, 300, 302, 338

&lt;223&gt; n = A,T,C or G

&lt;400&gt; 4

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ncggttgaac tacgganaac aacncgctgc cttcacagna cctagagtct cctttggagc 60
taccaacctc gccgaaggta cggcgacaca gacngangt gtacaagctt ttntanatgg 120
tggatattcn acaattaaat tcntacgtac tcnngtcca gtcnngagtc cnantgagct 180
gtttgctaan tnatgaantt cnttcnngca cgtgaagggc aaagagaaat aagggccnac 240
ttccnnaaag ggnttcctcg cgcatttagg tatcaggctt acttnagtat gtatngccnn 300
cntccgagcg ggagagccaa ggggtgctgta taaaattnaa aggaataaca taaaaa 356
```

&lt;210&gt; 5

&lt;211&gt; 577

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; 53, 58, 59, 143, 173, 197, 242, 303, 432, 491, 504, 514, 537

&lt;223&gt; n = A,T,C or G

&lt;400&gt; 5

```
gtcgaccccg cgtccgctta gggaactgca atattataag tatagtaatg acngcagnng 60
agaaccataa tgatggcctc cccggcaaag aagaaccaac ccgtgttacg cctgaggttg 120
caattttttg aatttttgca gtnagaccct ggcatgacc ttgagcagta ggngataaat 180
tccacatgct tagcgtncca gtaatggaac actaggcata aatgggttat taaagtatcc 240
anaattaaca tgcttagctg tgacattgga aaggcaatgt gtttgctgtg gcacacatac 300
tantaaataa tgactggtcc gaatttggtt ttcgtttgtc tattaaagtc aatttactaa 360
ggcagggagg gccagagct gtgctgtcca gttcaatagc catgcgtgac tgctaaggac 420
ttccaaagtg gntagtccaa tgtcaggtat gctgcaagtg tcaaacacac actggatttc 480
aaagactaaa nccaaaaaaa tgtnaaatca tctnaatatt ttggttatac tcggttnaag 540
aaaataaaat tattttttgcc ttttatgttt ttaaaag 577
```

&lt;210&gt; 6

&lt;211&gt; 331

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; 3

&lt;223&gt; n = A,T,C or G

&lt;400&gt; 6

```
ggncaccaca ctctacaaag gcagtcaact acatgacaca ttccgcttct gcctggtcac 60
caacttgacg atggactccg tgttggtcac tgtcaaggca ttgttctcct ccaatttgga 120
ccccagcctg gtggagcaag tctttctaga taagaccctg aatgcctcat tccattggct 180
gggctccacc taccagttgg tggacatcca tgtgacagaa atggagtcac cagtttatca 240
accaacaagc agctccagca cccagcactt ctacctgaat ttcaccatca ccaacctacc 300
atattccagc gacaaagccc agccaggcac c                                     331
```

&lt;210&gt; 7

&lt;211&gt; 446

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 7

```
ccctcgcggt ggcgggcgag gtgcatcacc ctgctgaggg acatccagga caaggtcacc 60
acactctaca aaggcagtca actacatgac acattccgct tctgcctggc caccaacttg 120
acgatggact ccgtgttggc cactgtcaag gcattgttct cctccaattt ggacccagc 180
ctgggtggagc aagtctttct agataagacc ctgaatgcct cattccattg gctgggctcc 240
acctaccagt tgggtggacat ccatgtgaca gaaatggagt catcagttta tcaaccaaca 300
agcagctcca gcacccagca cttctacctg aatttcacca tcaccaacct accatattcc 360
caggacaaag cccagccagg caccaccaat taccagagga acaaaaggaa tattgaggat 420
gcgctcaacc aactcttcga aacagc                                     446
```

&lt;210&gt; 8

&lt;211&gt; 497

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; 497

&lt;223&gt; n = A,T,C or G

&lt;400&gt; 8

```
tacttagggc gaattggagc tccccgcggt ggcgggcgag gtacgcggga gataagaccc 60
tgaatgcctc attccattgg ctgggctcca cctaccagtt ggtggacatc catgtgacag 120
aaatggagtc atcagtttat caaccaacaa gcagctccag caccagcac ttctacctga 180
atttcacat caccaacctt ccatattccc gggacaaagc ccagccaggc accaccaatt 240
accagaggaa caaaaggaat attgaggatg cgctcaacca actcttccga aacagcagca 300
tcaagagtta tttttctgac tgtcaagttt caacattcag gtctgtcccc aacaggcacc 360
acaccggggt ggactccctg tgtaacttct cgccactggc tcggagagta gacagagtgt 420
ccatctatga ggaattttctg cggatgaccc ggaatgggta cctgcccggg ccggccgctt 480
cggctttaga actagtn                                     497
```

&lt;210&gt; 9

&lt;211&gt; 488

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;222&gt; 27

&lt;223&gt; n = A,T,C or G

&lt;400&gt; 9

```
atagggcgaa ttggagctcc ccgcggnggc ggccgaggta ccattccggg tcatccgcag 60
```

```

aaattcctca tagatggcaa ctctgtctac tctccgagcc agtggcgaga agttacacag 120
ggagtccacc ccggtgtggt gcctgttggg gacagacctg aatgttgaaa cttgacagtc 180
agaaaaataa ctcttgatgc tgctgtttcg gaagagttgg ttgagcgcac cctcaatatt 240
ccttttgttc ctctggtaat tgggtggtgcc tggctgggct ttgtcctggg aatatggtag 300
gttgggtgatg gtgaaattca ggtagaagtg ctgggtgctg gagctgcttg ttggttgata 360
aactgatgac tccatttctg tcacatggat gtccaccaac tggtaggttg agcccagcca 420
atgggaatga ggcattcagg gtcttatcta gaaagacttg ctccaccagg ctgggggtcca 480
aattggag

```

```

<210> 10
<211> 463
<212> DNA
<213> Homo sapiens

```

```

<400> 10
ccgcgggtggc ggccgccccg gcaggtacat caccctgctg agggacatcc aggacaaggt 60
caccacactc tacaaggca gtcaactaca tgacacattc cgcttctgcc tggtcaccaa 120
cttgacgatg gactccgtgt cggtcactgt caaggcattg ttctcctcca atttgaccc 180
cagcctgggtg gagcaagtct ttctagataa gaccctgaat gcctcattcc attggctggg 240
ctccacctac cagttggttg acatccatgt ggcagaaatg gagtcacag tttatcaacc 300
aacaagcagc tccagcaccc agcacttcta cctgaatttc accatcacca acctaccata 360
ttcccaggac aaagcccagc caggcaccac caattaccag aggaacaaaa ggaatattga 420
ggatgcgctc aaccaactct tccgaaacag cagcatcaag agt
463

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```

<210> 11
<211> 302
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 6, 52, 53
<223> n = A,T,C or G

```

```

<400> 11
accgcngtgg cggccgcccc ggccaggtaca tcaccctgct gagggacttt tnnggacaag 60
gtcaccacac tctacaaagg cagtcaacta catgacacat tccgcttctg cctgggtcacc 120
aacttgacga tggactccgt gttggtcact gtcaaggcat tgttctcctc caatttggac 180
cccagcctgg tggagcaagt ctttctagat aagaccctga atgcctcatt ccattggctg 240
ggctccacct accagttggt ggacatccat gtgacagaaa tggagtcac agttttatca 300
ac
302

```

```

<210> 12
<211> 534
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 18, 463, 474, 518
<223> n = A,T,C or G

```

```

<400> 12
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aactccaccg aggggggtcct tcagcacctg ctgagacctg tgttccagaa gagcagcatg 180
ggcccccttct acttggggtg ccaactgatc tccctcaggc ctgagaagga tggggcagcc 240
actggtgtgg acaccacctg cacctaccac cctgacctg tgggccccgg gctggacata 300
cagcagcttt actgggagct gagtcagctg acccatgggt gtcacccaac tgggcttcta 360
ttgtcctgga cagggatagc ctcttcatca atggctatgc accccaaaat ttatcaatcc 420
gggggcgagg tacctgcccc gggcggggccg cttaaaacta ggnggggatcc ccnggcttg 480

```

caggaatttc gatattcaag cttatcgata cccgtccnac cttcgagggg gggg 534

<210> 13  
<211> 290  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> 15, 16, 39, 41, 71, 106, 129, 137, 140, 149, 164, 167, 226,  
245, 251, 263, 268  
<223> n = A,T,C or G

<400> 13  
tggggggaaag ggagnnccca acgatcctgg aactttaant ntggaaagag tgagattcag 60  
aaatcgccac nactggactt taagggacgt cctgtgtcag cacaanggac tggcacacac 120  
agacacacna gaccgangan aaactgcana caaatggaga tacnaanact tagaaggaca 180  
gctcctttca cctcatccta cttgtccaga aggtaaaaag acacanccag aaagaaaagg 240  
catcngctca nctctcagat cangacangc tgtggatctg tggcgggtact 290

<210> 14  
<211> 430  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> 93, 315, 407  
<223> n = A,T,C or G

<400> 14  
gcgtccgaat ttcctgggta ccccgatatat aagaaaatgt taaagtcagg caggaaaact 60  
atagaattaa agccttatag tatattatat agnaaagccc tatatagtat agacagaaaa 120  
gttttagggaa ggcccacaaat tgcaaaagaaa agtgggtgggc acggaacaag ggaatgtcat 180  
acaaatgtgg acacacactg cgttactgag cgccacgtct cataggtgag aagcataact 240  
ctagaagggtg agaaatgaga attttcactt ccacccctcc atttggttg tgactctgcc 300  
atttactttc ctttnttttg tattttcatt ttccttttaa aaatggaaat atgaattttg 360  
aatttctgct ctatctcaca ggttttttgt ggggatgcat ttaaaangtt taattagtaa 420  
ataatggtat 430

<210> 15  
<211> 435  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> 39, 242, 363, 393, 404, 406, 412  
<223> n = A,T,C or G

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ttaaatatta ccttcaatac ctgtcagtag cctactgaca aattatgact aaacaaagg 120  
atttgatga ctatgtaata gatcatccgc tgaaaagtaa aacaaaataa caaaaaaact 180  
tgcctaatg ggaaagcatg ctttaataaaa ggaaatgcac gaagttataa acatgttttg 240  
tnagtaagta ttcagaatta aaattatgtg atacattttt atgattgctt aatgatcctt 300  
ggatgtcaga ttccttgggt ctatttatag ctaaattata atgaaaaatt caaggcttgc 360  
tnagcaact ctgtcaacaa atatattagt ttngcttata tatntngatt cnttatgtgg 420  
gaaaaattac tacc 435

<210> 16

<211> 493  
 <212> DNA  
 <213> Homo sapiens

<400> 16  
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 agtcttctcc ggagggtgct gccgtggtgc aggaggagct caggggagctg gcagagtcgt 180  
 ggccgggcctt gaggctgctg gaagaaagtc tgctgagcct catcagaaac tggcatctgc 240  
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 gatttctcat caatcccatg gatcctatcc ccaggcatcg tcgacgcgtg agtctgtcta 360  
 gcagggtgtg gggagaaggg gccaggcccc aggtcaagag gtgggtaggg gtctccagca 420  
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 catttgagcc tgc 493

<210> 17  
 <211> 315  
 <212> DNA  
 <213> Homo sapiens

<400> 17  
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 ggtactgttc atggacagag gaagtcctat ggcataatgct gggacagaca gtgaagggtg 180  
 ggtcttacaa agaggcttta cgtagagta taataatcac ttatctgtat gcacttatga 240  
 atgatctcac cggatgtgaa gaatatgtat ttttaaaaac agcatgaaac ggcctgtaat 300  
 cccagtactt ttggg 315

<210> 18  
 <211> 339  
 <212> DNA  
 <213> Homo sapiens

<400> 18  
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 actttttcct attcttcata aagttctaaa ttcagaatgt gaggtggaca aattcatttc 120  
 agttccacaa gtggtagcat ttaaataatca gcagcttaag tattcaaaat taatagattg 180  
 catttttaaa atgggtgaaat tctgacagtt tgcagggaaa aggtgctgaa tatcttgata 240  
 taatttacat acttctataa acaggcattt ttataccttt ggaaagataa atgagtagaa 300  
 accaagtatt ttacaattct aatagttata ctgacatgt 339

<210> 19  
 <211> 520  
 <212> DNA  
 <213> Homo sapiens

<400> 19  
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 tactttgctc tttaactttg ttcgatcctt cttggatcag tcttgcaatt cattcttgct 120  
 ttttcctgaa taacatctat gttttgccct cttttgagtg ctatcttaat atgccagcct 180  
 atttctacct ttcttgtgca gggtagcata atttttactt tccattatac ctgagtccca 240  
 caccttggtg tctgtttatt tcaataccta agatacttat cctcagttcc tagcttactt 300  
 tagttctgaa agttggatat ccataattgt agtggcttta aatctgtaaa acacatatgg 360  
 atgggaaacc actgaataat gtaaataaat atgaataacg atgataaaat aaaaatgata 420  
 aaaataactg agttcaatga tattaataaac ataagtcagt ttaactatct tttttttgag 480  
 acaggggctc tgtcaccaag gctagagctg cagtgagtc 520